

IN THE ABSTRACT

Please amend the abstract as follows:

A wavelength filter, ~~which has a simple structure with a small number of types of thin films and a small number of laminations, is produced by a simple process, has few variations of performance and has a broad wavelength band, is provided.~~ The wavelength filter ~~is composed of~~ includes a grating in which a first portion (103) ~~extending~~ extends in X direction on a substrate surface and a second portion (105) ~~extending~~ extends in the X direction along the first portion and are alternately arranged in Y direction perpendicular to the X direction on the substrate surface at a constant cycle shorter than ~~the~~ a wavelength of light to be used. ~~The~~ A cross-sectional figure of respective first portions in the Y direction and perpendicular to the substrate surface is provided with at least one protruding portion (107) ~~so as to have the width in the Y direction wider than that of neighboring portions. It is constituted so that p~~ Plural waveguide layers parallel to the substrate surface are ~~divided by regions parallel to the substrate surface in the range of the predetermined distance are formed, and that w.~~ Wavelength bands of light reflected from the plural waveguide layers shift while overlapping with each other to reflect a wavelength band broader than that reflected from a single waveguide layer.